

# ABSTRACT

## LOCATION MANAGEMENT IN A MOBILE TELECOMMUNICATION SYSTEM

The basic idea of the invention is to separate the location area used in the RAN and the reporting area used when reporting the location of the mobile to the core network. The size of the location area is selected preferably in the RAN based on the services used by the subscriber to optimize the use of radio resources. A reporting area comprises one or a plurality of location areas. The size of a reporting area is selected based on the accuracy of location information needed in the core network. The RAN informs the core network when a subscriber moves out of his current location area. The core network and the radio access network negotiate the size of the reporting area prior to the activation of the service. Additionally, the reporting areas can be renegotiated when the service is in the active state.

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